PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number: 049128-5034	
Application Number: **10/029,848**	Filed: **December 31, 2001**
First Named Inventor: **Jay Hyung LEE, *et al.***	
Art Unit: **2629**	Examiner: **A. Nelson**

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on _____

Signature _____

Typed or printed Name _____

Applicant(s) request(s) review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being field with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages are provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.

☒ attorney or agent of record. Registration number 41,480

☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

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September 1, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 form is submitted.

Response Under 37 C.F.R. § 1.116
Expedited Procedure
Examining Group 2600

PATENT
Attorney Docket No. 049128-5034

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Jay Hyung LEE, *et al.*)	Confirmation No.: 5336
Application No.: 10/029,848)	Art Unit: 2629
Filed: December 31, 2001)	Examiner: A. Nelson
For: LIQUID CRYSTAL DISPLAY WITH)	
2-PORT DATA POLARITY INVERTER)	
AND METHOD OF DRIVING THE SAME)	**MS: AF**

U.S. Patent and Trademark Office
Customer Window, Mail Stop AF
Alexandria, VA 22314

Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

In response to the final Office Action of June 2, 2006, Applicants respectfully request for a pre-appeal brief review of the pending rejections. A Notice of Appeal is filed concurrently herewith.

All the pending claims (i.e., claims 1-9, 11, 12 and 14-20) currently stand finally rejected over, *inter alia*, Nishimura and Youn. Applicants disagree and therefore request review of the final rejection of these claims. While Applicants assert that none of the prior art of record, whether taken individually or in combination, renders the claims unpatentable, only the independent claims 1, 11, and 16 will be discussed for convenience. Claim 16 is discussed first.

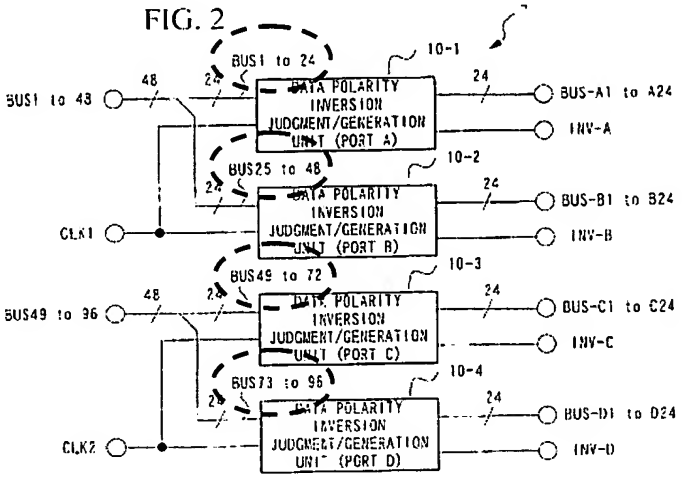
Independent claim 16 recites:

> A 2-port data polarity inverter for driving a liquid crystal display, comprising:
> an odd data polarity inversion driver to generate a first invention signal to invert odd-numbered input data bits when a first data transition is detected in the odd data; and

an even data polarity inversion driver to generate a second inversion signal to invert even-numbered input data bits when a second data transition is detected in the even data.

As reproduced below, Nishimura discloses a ***4-port*** data polarity inverter.

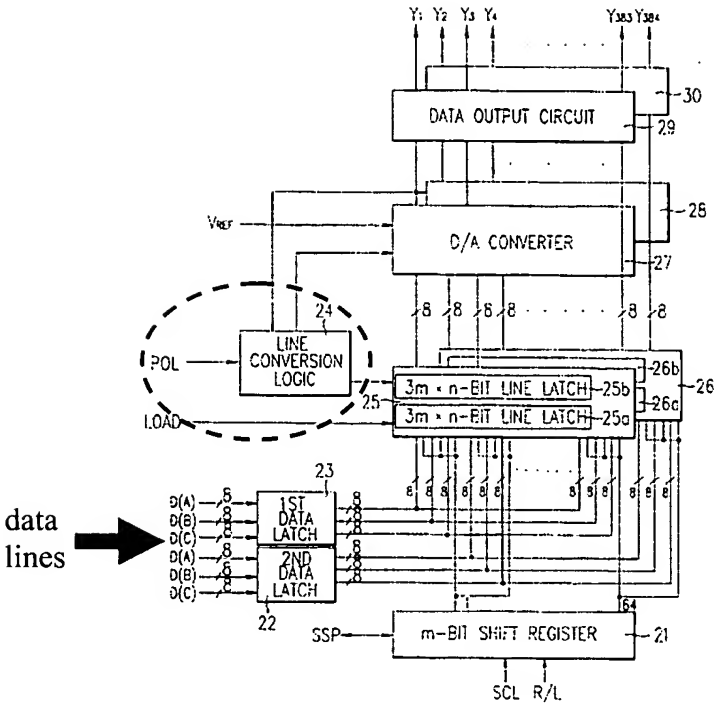
FIG. 2



As explained in previous responses to the Office Actions, incorporated herein by reference, Nishimura's 4-port data polarity inversion circuit includes four polarity inversion units (10-1 to 10-4) that are dedicated to one-fourth of the data buses. That is, for a 96-bit data bus, as shown in FIG. 2 above, Unit 10-1 is dedicated to the first 24 buses (BUS1-24), Unit 10-2 is dedicated to the next 24 buses (BUS25-48), etc. Nishimura fails to teach or even suggest a "2-port data polarity inverter" including "an odd data polarity inversion driver" and "an even polarity inversion driver" as recited, in part, in claim 16.

As reproduced below, Youn discloses a data driver having a ***single*** data polarity inverter. As shown below in FIG. 5, Youn teaches only a single data polarity inverter that applies an inversion signal to both odd numbered bit data from register 25 and even numbered bit data from register 26.

FIG.5



As stated in the previous response (i.e., Request for Reconsideration, filed March 14, 2006), ***both*** Nishimura and Youn ***fail*** to teach or even suggest a 2-port data inverter including an odd data polarity inversion driver and even data polarity inversion driver.

In order to nominally cure the deficiencies of Nishimura, the Office alleges that it would have been obvious to one with ordinary skill in the art to have divided the data in Nishimura into even and odd groups as taught by Youn. (FOA: p. 3, last paragraph.) Applicants stress again that there is no motivation to modify Nishimura based on Youn's teaching to arrive at the claimed invention. As explained above, Youn teaches a data driver with ***data lines*** divided into odd and even numbered bits ***to be converted into image signals***. That is, these data lines provide image data that are converted by the D/A converters 27 and 28 into image signals ***to drive the***

pixels in the liquid crystal panel. The divided odd/even numbered data lines in Youn have ***no relation*** with the line conversion logic 24 (i.e., the polarity inverter). In fact, Youn teaches inverting the image signals based on one signal (POL). Accordingly, Youn is completely silent as to how or why one with ordinary skill in the art would modify the 4-port ***data polarity inverter*** of Nishimura to operate on odd/even numbered input data when Nishimura specifically teaches using sequentially numbered data (i.e., both odd/even numbered data). As asserted in previous responses, the teachings of Nishimura and Youn are inapposite. Accordingly, Applicants respectfully submit that the rejection proffered in the final Office Action is, at best, is pieced together from select portions of Nishimura and Youn using the claims of the present application as a guide rather than from the teachings of Nishimura and Youn.

Independent claim 1 recites, in part,

> a liquid crystal polarity inversion driver...
> a first data polarity inversion driver determining whether a first data transition has occurred in a first set of data, and inverting the polarity of the first set of data in accordance with the determined result; and
> a second data polarity driver determining whether a second data transition has occurred in a second set of data and inverting the polarity of the second set of data in accordance with the determined result,
> wherein the first set of data is odd-numbered bits...and the second set of data is even-numbered bits....

Independent claim 11 is a method claim that corresponds to claim 1. As explained above, Nishimura and Youn both fail to teach or suggest the recited features.

In view of the foregoing, Applicants respectfully submit that the rejections made in the final Office Action are in error and therefore should be withdrawn.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

MORGAN, LEWIS & BOCKIUS LLP

Dated: September 1, 2006

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